

### **REMARKS**

Claims 1, 3, 6, 10 and 57 have been amended. Claims 1-7, 9-19, 26-32 and 54-59 are present in the application. In view of the foregoing amendments, and the remarks that follow, favorable consideration is respectfully requested.

#### **Restriction Requirement**

On page 2 of the Office Action, the Examiner expresses the opinion that there is still a lack of unity, and that the prior restriction requirement is thus still deemed proper. Accordingly, the Office Action indicates that Claims 11-19, 26-32, 55-56 and 58 are withdrawn, and does not consider them on the merits. However, the Examiner is respectfully reminded that the restriction here is subject to PCT restriction principles. It is respectfully submitted that the presence in the pending claims of limitations that recite a valve or variable constriction provide a novel and non-obvious distinction over the prior art, and thus serve as a unifying characteristic that supersedes the assertions of lack of unity. Accordingly, it is respectfully submitted that the Examiner should not have withdrawn any claims from consideration on the merits, but should instead have considered all of the currently-pending claims on the merits. Applicants therefore request that all pending claims be considered on the merits.

#### **Objection to Incomplete Office Action**

In Sections 5 and 6 on page 3, the Examiner notes the "analyzer", "sample", "diluent" and "diluted sample" that are recited in each of Claims 1 and 57 are not considered to be part of the claimed combinations. Applicants agree.

On the other hand, in Section 5 on page 3, the Examiner asserts that the "first conduit", "second conduit", "third conduit" and "valve, or variable constriction" in Claim 1 were not positively recited, were not structurally limiting, and thus were not given patentable weight. Applicants respectfully traverse this assertion. The Examiner cites no authority in support of this assertion, and offers no clear explanation of the objection. As best understood, the Examiner is

apparently assuming that an element is not positively recited unless the first recitation of that element appears at the beginning of a separate sub-paragraph in the claim. However, there is no requirement that a claim include any sub-paragraphs. A claim can be properly presented as a single long paragraph, and an element can be properly and positively recited at any point within that paragraph. To the extent the Examiner failed to properly consider and give patentable weight to certain structural elements that were in fact positively recited in Claim 1, the Examiner has failed to fully consider Applicants' claimed invention, and that renders the present Office Action incomplete. Applicants respectfully submit that the present Office Action must therefore be withdrawn and replaced with a new and non-final office action that properly considers the entire combination recited in Claim 1, and not just a portion of that combination. As a courtesy, the foregoing amendments to Claim 1 introduce the indicated elements in a manner that may be more comfortable to the Examiner, but this should not be interpreted as a waiver of Applicants' objection to the fact that the Office Action is not complete.

#### Objection to Claim 10

In Section 7 on page 3 of the Office Action, the Examiner objects to Claim 10, indicating that the recitation of a "mass spectrometer" is located in the preamble, has therefore not been treated as part of the claimed combination, and thus has not been given any patentable weight, such that Claims 1 and 10 effectively recite exactly the same invention. The foregoing amendments adjust Claim 10 so that the "mass spectrometer" is clearly and positively recited in the body of Claim 10, and is therefore entitled to be given patentable weight. This also makes it clearer that the combination recited in Claim 10 is different from the combination recited in Claim 1.

#### Certain Functional Language in Claims 1, 4-6, 57 and 59

In Section 4 on pages 2-3 of the Office Action, the Examiner quotes several functional phrases from Claims 1, 4-6, 57 and 59, and then asserts that these phrases do not contribute to

the definition of the claimed combinations, but are merely statements of intended use and therefore not entitled to any patentable weight. However, this assertion is respectfully traversed.

First, some of Applicant's claims include functional language in the form of means-plus-function limitations (such as the recitation of "pump means" in Claim 1). The patent statute provides in the sixth paragraph of 35 U.S.C. §112 that a means-plus-function limitation is a recitation of structure that is to be given patentable weight, and the Examiner does not question this functional language. On the other hand, Applicants' claims also include some functional language that does not happen to be in a means-plus-function limitation. The Examiner jumps to the conclusion that none of this other functional language is entitled to be given any patentable weight. However, this conclusion is wrong. In this regard, the attention of the Examiner is respectfully directed to the case of *In Re Swinehart*, 439 F2d. 210, 169 USPQ 226 (CCPA 1971).

*Swinehart* involved a past situation where an examiner admitted that functional language in means-plus-function format was entitled to be given patentable weight, but refused to give patentable weight to other functional language that was not in means-plus-function format. The PTO backed the examiner, took the issue to court, **and lost**. In particular, the Court ruled that the examiner and the PTO were both wrong. Due to the fact that the PTO lost the lawsuit, the PTO is now legally required to follow the *Swinehart* decision, and the PTO therefore now conforms to that view. For example, the Examiner's attention is respectfully directed to MPEP §2173.01, where the PTO cites the *Swinehart* decision with favor, and states that:

Applicant may use functional language . . . or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. As noted by the Court in *In Re Swinehart*, 439 F2d. 210, 169 USPQ 226 (CCPA 1971), a claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought.

Similarly, MPEP §2173.05(g) cites the *Swinehart* decision, and states that although a "functional limitation is an attempt to define something by what it does rather than what it is. . . . Functional language does not, in and of itself, render a claim improper". Moreover, MPEP §2114 states that, in an apparatus claim, "features of an apparatus may be recited either structurally or functionally".

For the reasons discussed above, functional claim language can in fact be properly used to define structure (even without use of the word "means"). It is well-established PTO policy that examiners are required to give patentable weight to all such functional language in a claim. In Section 4 of the present Office Action, the Examiner has improperly failed to give patentable weight to certain functional limitations that are in fact entitled to be given patentable weight. The failure to properly consider this functional language on the merits is a further defect that serves to render the present Office Action incomplete. Applicants respectfully submit that the present Office Action must be withdrawn and replaced with a new and non-final office action that properly considers all of the relevant claim limitations, and not just a subset of the relevant claim limitations.

#### Compliance with Second Paragraph of 35 U.S.C. §112

In Section 9 of the Office Action, the Examiner rejects Claims 1-7, 9-10, 54, 57 and 59 under the second paragraph of 35 U.S.C. §112 as indefinite. This rejection essentially parallels the claim objections that are set forth in Sections 5-7 of the Office Action, and that have already been discussed above. For example, the Examiner asserts that certain claim elements were not positively recited, but they actually were positively recited. In any event, as also discussed above, the claims have been amended in a manner that should even more clearly reflect which subject matter is positively recited and thus part of the claimed combinations, and which subject matter is not part of the claimed combinations. It is respectfully submitted that Claims 1-7, 9-10, 54, 57 and 59 are definite, and in compliance with the second paragraph of §112.

In regard to Claim 1, the Examiner notes the phrase "a controller arranged to...", and asserts that it is not clear whether this phrase refers to a specific positional arrangement of the controller with respect to other components of the device, or a specific computer program to perform the tasks (which the examiner suggests is not described in the description). Claim 1 specifies that the controller is arranged to receive data from an analyzer, and to control the pump means. It is respectfully submitted that this means the controller has both a form of positional arrangement and an internal computer program, since the controller must be coupled to the pump means, must be capable of being coupled to an analyzer, and must be capable of making an adjustment to the pump means in response to data it receives. This is discussed in the present application (as originally filed in the form of a PCT application, for example in lines 20-25 on page 7 and in lines 5-26 on page 13). It is respectfully submitted that a person skilled in the art would, after reading the disclosure in the present application, readily understand how to implement such a pump controller. Moreover, and contrary to the assertions in the Office Action, it is respectfully submitted that there is nothing indefinite about the recitation of the controller in Claim 1. Claim 1 contains some broad language but, as pointed out in MPEP §2173.04, the fact that claim language is broad does not automatically mean that the claim language is indefinite.

#### Patentability of Independent Claims 1 and 57

Independent Claims 1 and 57 each stand rejected under 35 U.S.C. §102 as anticipated by Figure 2 and paragraphs 10-19 of the present application, which the Examiner refers to as Applicants' Admitted Prior Art (AAPA). These grounds of rejection are respectfully traversed, for the following reasons. Quoting relevant case law, the PTO explains in MPEP §2131 that, under 35 U.S.C. §102:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a

single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). . . . "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim . . . . *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

In other words, to anticipate a claim under §102, a reference (1) must disclose each and every element recited in the claim, and (2) must also disclose these elements arranged in the manner recited in the claim. Independent Claim 1 recites:

. . . a mixer . . . coupled to the first conduit and the second conduit such that the sample enters the mixer through the first conduit at a first flow rate and the diluent enters the mixer through the second conduit at a second flow rate, the mixer being coupled to the third conduit and arranged so that said diluted sample exits the mixer into the third conduit at a third flow rate . . . ; . . . a pump coupled to the third conduit; and a valve, or variable constriction, disposed in one of the first and second conduits and arranged to control the first or second flow rate respectively . . .

Independent Claim 57 recites:

. . . a mixer . . . ; a first conduit for supplying a sample to the mixer at a first flow rate; a second conduit for supplying a diluent to the mixer at a second flow rate; a third conduit for receiving a diluted



sample from the mixer; and a pump for pumping the diluted sample from the mixer through the third conduit at a third flow rate . . . , wherein one of the first and second conduits comprises a valve, or variable constriction, disposed therein for controlling the first or second flow rate, respectively.

Thus, Claims 1 and 57 each call for a pump associated with the third conduit (for the diluted sample), and also call for a valve or variable constriction in one of the first and second conduits (respectively for the sample and diluent), in order to respectively control the first or second flow rate. Turning to the AAPA, Figure 2 of the present application shows a valve 32 in an inlet conduit 30 to a mixer 34. However, a pump 31 is also in this same conduit. The pump 31 is a syringe pump, and the pump 31 and valve 32 work in tandem to control fluid flow through the conduit 30. For example, paragraph 12 of the present application explains that, with syringe pumps, fluid needs to be drawn up before it is pumped out, and so valves are required to ensure the correct flow of fluid through the system. Claims 1 and 57 are each different from Figure 2 of the AAPA, because they each recite a pump for a conduit out of a mixer, whereas Figure 2 shows a pump for a conduit into a mixer.

As discussed above, in order to anticipate a claim under §102, a reference (1) must disclose each and every element recited in the claim, and (2) must also disclose these elements arranged in the manner recited in the claim. The system shown in Figure 2 of the AAPA does not meet this requirement. Accordingly, it is respectfully submitted that the AAPA does not anticipate either of Claims 1 and 57, and notice to that effect is respectfully requested.

#### Dependent Claims

Claims 2-7, 9-10, 54 and 59 each depend from Claim 1, and are also believed to be patentable over the AAPA, for example for the same reasons discussed above in association with Claim 1.

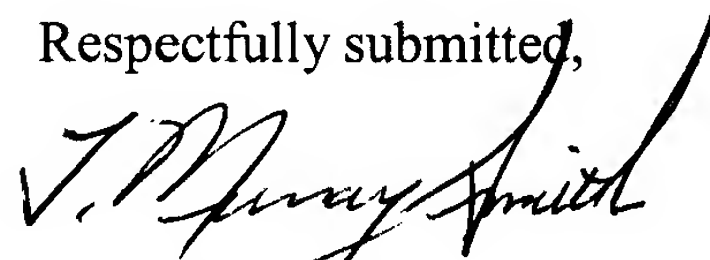
Conclusion

Based on the foregoing, it is respectfully submitted that all of the pending claims are fully allowable, and favorable reconsideration of this application is therefore respectfully requested. If the Examiner believes that examination of the present application may be advanced in any way by a telephone conference, the Examiner is invited to telephone the undersigned attorney at 972-739-8647.

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Enclosures: Petition for Time Extension

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